

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please cancel claims 1-14.

Please add claims 15-33:

15. (new) A mutated penicillin expandase, derived from a wild-type expandase of a *Streptomyces* species, wherein the mutated penicillin expandase has a substitution at one or more amino acid residues selected from the group consisting of residues corresponding to methionine 73, glycine 79, valine 275, leucine 277, and cysteine 281 of SEQ ID NO: 1.

16. (new) The mutated penicillin expandase of Claim 15, wherein the *Streptomyces* species is *Streptomyces clavuligerus*.

17. (new) The mutated penicillin expandase of Claim 15, wherein the residue corresponding to methionine 73 is substituted by threonine.

18. (new) The mutated penicillin expandase of Claim 15, wherein the residue corresponding to glycine 79 is substituted by glutamic acid.

19. (new) The mutated penicillin expandase of Claim 15, wherein the residue corresponding to valine 275 is substituted by isoleucine.

20. (new) The mutated penicillin expandase of Claim 15, wherein the residue corresponding to leucine 277 is substituted by lysine.

21. (new) The mutated penicillin expandase of Claim 15, wherein the residue corresponding to cysteine 281 is substituted by tyrosine.

22. (new) The mutated penicillin expandase of Claim 15, wherein the residue corresponding to methionine 73 is substituted by threonine, the residue corresponding to glycine 79 is substituted by glutamic acid, the residue corresponding to valine 275 is substituted by isoleucine, the residue corresponding to leucine 277 is substituted by lysine, and the residue corresponding to cysteine 281 is substituted by tyrosine.

23. (new) A mutated penicillin expandase derived from the penicillin expandase of Claim 15, wherein the mutated penicillin expandase has a further substitution at one or more amino acid residues selected from the group consisting of residues corresponding to glycine 300, asparagine 304, and isoleucine 305 of SEQ ID NO: 1.

24. (new) The mutated penicillin expandase of Claim 15, wherein the *Streptomyces* species is *Streptomyces clavuligerus*.

25. (new) The mutated penicillin expandase of Claim 23, wherein the residue corresponding to methionine 73 is substituted by threonine.

26. (new) The mutated penicillin expandase of Claim 23, wherein the residue corresponding to glycine 79 is substituted by glutamic acid.

27. (new) The mutated penicillin expandase of Claim 23, wherein the residue corresponding to valine 275 is substituted by isoleucine.

28. (new) The mutated penicillin expandase of Claim 23, wherein the residue corresponding to leucine 277 is substituted by lysine.

29. (new) The mutated penicillin expandase of Claim 23, wherein the residue corresponding to cysteine 281 is substituted by tyrosine.

30. (new) The mutated penicillin expandase of Claim 23, wherein the residue corresponding to glycine 300 is substituted by valine.

31. (new) The mutated penicillin expandase of Claim 23, wherein the residue corresponding to asparagine 304 is substituted by lysine.

32. The mutated penicillin expandase of Claim 23, wherein the residue corresponding to isoleucine 305 is substituted by leucine or methionine.

33. (new) The mutated penicillin expandase of Claim 23, wherein the residue corresponding to glycine 300 is substituted by valine, the residue corresponding to asparagine 304 is substituted by lysine, and the residue corresponding to isoleucine 305 is substituted by leucine or methionine.